

A NEW SPECIES OF *PLUMISPINA* ALBUQUERQUE (DIPTERA: MUSCIDAE)
FROM SOUTHERN BRAZIL

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Abstract.—A new species of the genus *Plumispina* Albuquerque (Diptera: Muscidae), *P. similis* Costacurta and Carvalho, from Guarapuava, Paraná, southern Brazil is described, diagnosed and figured. A diagnosis of the genus *Plumispina* and a key to its two known species are provided.

Key Words: *Plumispina*, southern Brazil, systematics, taxonomy

The Neotropical genus *Plumispina* was proposed by Albuquerque (1954) to include a single species, *P. longipilis*, collected in the city of Rio de Janeiro, Brazil. The genus was accepted by Pont (1972) as monobasic, but recently Carvalho et al. (1993) considered *Plumispina* as a junior synonym of *Neodexiopsis* Malloch. In a key to the world genera of the Coenosini, Couri and Pont (1999) revalidated *Plumispina*. In their cladistic analysis (Couri and Pont 2000) they indicated that *Plumispina* belongs to a larger monophyletic group containing 17 genera, including *Coenosia* Meigen.

In this paper, we describe a new species of *Plumispina* from Guarapuava which also was found in Ponta Grossa and Colombo, southern Brazil, present a diagnosis of the genus, and give a key to its two known species.

MATERIAL AND METHODS

This study is based on material deposited in the following institutions: Department of Zoology of "Universidade Federal do Pa-

raná" (DZUP) and "Museu Nacional, Rio de Janeiro" (MNRJ).

The terminology and abbreviations used for the external morphology, including terminalia, follow McAlpine (1981) and Carvalho (1989).

SYSTEMATICS

Plumispina Albuquerque 1954

Type-species.—*Plumispina longipilis* Albuquerque 1954 (orig. desig.).

Diagnosis.—*Plumispina* is a typical Coenosini because of the absence of prealar; the proepimeral lower seta directed downwards; and katapisternals with 1:1:1 setae forming an equilateral triangle. This genus belongs to a larger, monophyletic *Coenosia* group *sensu* Couri and Pont (2000). The main diagnostic characters of the genus are: male dichoptic; one pair of reclinate orbital setae; arista with short plumae; and hind tibia with long ciliation on anterodorsal, dorsal, and posterodorsal surfaces. This last character, together with the setulose sternite 1 and the shape of the hypandrium, gonopod and paramere (Fig. 3; Albuquerque

1954; figs. 5, 7–8) could be considered as autapomorphic characters of the genus.

KEY TO SPECIES OF *PLUMISPINA*

(Based on males; females are unknown.)

1. Arista bare on apical third; scutellum with pair of apical setae two-thirds as long as basal one; hind femur and hind tibia with many long hairs on ventral surfaces (Albuquerque 1954: 179, fig. 2); sternite 5 without a median projection on posterior margin (Albuquerque 1954: 179, fig. 9) (Brazil: Rio de Janeiro)
 *P. longipilis* Albuquerque
 Arista with short plumae along its length; scutellum with pair of apical setae similar to basal one; hind femur bare on ventral surface; hind tibia with few hairs on ventral surface; sternite 5 with a distinct median projection at posterior margin (Fig. 4) (Brazil: Paraná)
 *P. similis* Costacurta and Carvalho, n. sp.

Plumispina similis

Costacurta and Carvalho, new species

(Figs. 1–4)

Diagnosis.—This species is similar to *P. longipilis*, but it can be easily distinguished by the short plumae covering the whole length of the arista, scutellum with the pair of apical setae similar to the basal one, and a distinct projection on sternite 5 (Fig. 4).

Description.—Male: *Head*: 1 pair of reclinate fronto-orbital setae; post-ocellar divergent setae shorter than ocellar ones; 3 pairs of frontal setae; inner verticals reclinate. Antenna yellow; arista covered with short plumae along its length. Parafacialia slender and bare. Proboscis light brown and palpus pale yellow. Gena slender.

Thorax: Ground color dark brown with pruinose pubescence. Mesonotum with 3 slender light brown stripes, 1:3 dorsocentral setae; 2 acrostichals series, presutural setae stronger; 1 post-humeral; 1:1 intra-alar. Prealar setae absent. Scutellum with one pair of apical setae similar to basal one. Two proepisternal setae; 2 proepimerals, lower one downwards directed; 1:1:1 katepisternals, forming an equilateral triangle.

Legs: Yellow. Fore femur with 2 posterior basal setae; 2 posterodorsal; 4 posteroventral. Fore tibia with 1 posterior median

seta; 2 posterodorsal; 1 preapical. Mid femur with 2 preapical posterodorsal; 3 ventral on basal $\frac{1}{3}$. Mid tibia with 1 anterodorsal, 1 posterodorsal and 1 dorsal setae, all submedian. Hind femur with 2–3 anteroventral setae on apical half; 1 anterodorsal, 1 posterodorsal and 2 dorsal preapical setae. Hind tibia with several long hairs on anterodorsal, dorsal, posterodorsal surfaces and few hairs on ventral surfaces.

Wing: Clear, veins yellowish, bare except costa. Membrane entirely covered with microtrichia. Crossvein r-m about $\frac{1}{4}$ of length of dm-cu. Calypters and halter yellowish; lower calypter about twice as long as upper one.

Abdomen: Ground color yellowish; tergite 1+2 and anterior part of tergite 3 yellowish; posterior part of tergite 3, tergite 4 and tergite 5 brownish. Tergite 4 with 6 discal setae; tergite 5 with 4 discal setae and 6 marginal ones. Sternite 1 haired.

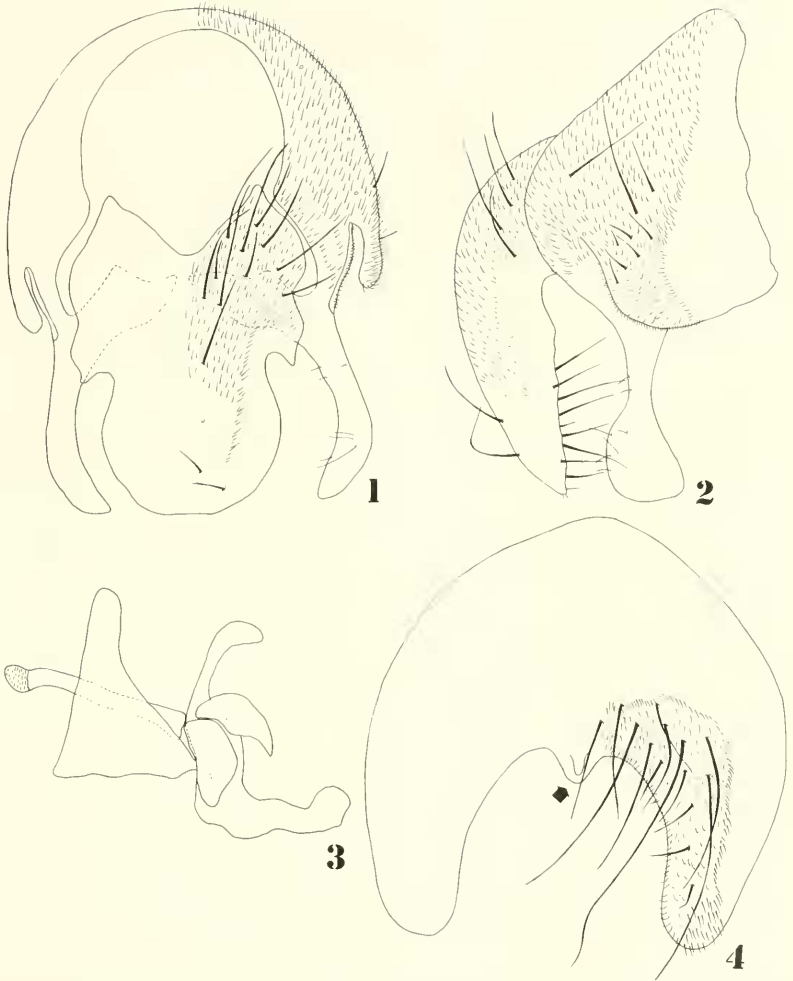
Terminalia: See Figs. 1–4.

Measurements: Length of body, 2.6–3.3 mm (n = 63). Length of wing, 2.8–3.9 mm (n = 63).

Female: Unknown.

Holotype.—Male in DZUP, labelled as follow: "Guarapuava—Paraná/Est. [resort] Sta. Clara/Brasil 08.ix.1986/Lev. [survey] Ent. [Entomological] PROFAUPAR [Project of fauna of Paraná/Malaise]"; "HOL-OTIPO" [red label]. "Plumispina similis sp.n./Costacurta & Carvalho." Specimen in reasonable condition. It lacks the left hind leg. Abdomen in microvial attached to pin.

Paratypes.—Total: 62 ♂ (DZUP, MNRJ). BRAZIL, Paraná: Santa Clara, Guarapuava, 4.viii.1986 (2); ibidem, 11.viii.1986 (13); ibidem, 25.viii.1986 (3); ibidem, 1.ix.1986 (3); ibidem, 15.ix.1986 (5); ibidem, 20.x.1986 (1); ibidem, 27.x.1986 (3); ibidem, 3.xi.1986 (5); ibidem, 19.i.1987 (1); ibidem, 2.ii.1987 (1). Vila Velha, Ponta Grossa, BR [road] 376, 11.viii.1986 (1); ibidem, 6.x.1986 (2); ibidem, 13.x.1986 (1); ibidem, 20.x.1986 (1); ibidem, 27.x.1986 (1); 3.xi.1986 (4); ibidem, 17.xi.1986 (3); ibidem, 24.xi.1986 (1); ibi-



Figs. 1–4. *Phomispina similis*. 1. Epandrium, cercal plate and surstylus, posterior view. 2. Epandrium, cercal plate and surstylus, lateral view. 3. Aedeagus complex, lateral view. 4. Sternite 5, dorsal view (arrow indicates median projection).

dem, 22.xii.1986 (1); *ibidem*, 29.xii.1986 (3); *ibidem* 12.i.1987 (1); *ibidem*, 2.ii.1987 (2); *ibidem*, 9.iii.1987 (1). Colombo, BR 476, km 20, 24.xi.1986 (1); *ibidem*, 22.xi.1986 (1); *ibidem*, 29.xii.1986 (1).

Variation.—Some specimens have darker antennae than others. There is no other significant variation among the specimens.

Etymology.—From the Latin *similis* = similar; the specific name is based on the close general appearance to the other species of the genus.

Comments.—All material of *P. similis* was collected in Malaise traps in well-preserved forest areas.

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